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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,103	10/26/2000	Joachim Zimmer	1356	1589

7590

09/23/2004

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Huntington, NY 11743

EXAMINER

COLE, LAURA C

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,103

Applicant(s)

ZIMMER, JOACHIM

Examiner

Laura C Cole

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08192004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1, 5-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of Claims 1, 8, 13, 16, and 17 use either the term “positive” or “non-positive” to describe a connection. It is not clear to the examiner as to what “positive” or “non-positive” is defined as. The Applicant points out in Page 3 of the Specification that a “non-positive” fit includes a press fit, a conically extending axle, and/or a chamfer. What is a “positive” or “non-positive” engagement? From interpreting the written Specification, the Examiner initially thought that “non-positive” meant “not rotatably fixed” (for example, that the disk was not rotatably fixed to the axle), however if “non-positive” is to include press fitting and chamfers it is unclear to the Examiner what is meant by “positive” or “non-positive”. In the response filed 17 August 2004, the Applicant attempts to define “positive” and “non-positive”. Specifically, page 7 of this response states that “positive engagement” is a “connection in which the parts engaged with one another are *substantially immovable* relative to one another because of their interlocking or interengagement with one another by their bodies having portions which are directly introduced with each other.” However, couldn’t the axle and disk of the Applicant’s own invention form a “positive engagement” if there was a certain amount of

friction between the two parts or transverse forces created by friction? The Applicant's definition of "non-positive" in the response of 17 August 2004 states that a "non-positive engagement is an engagement in which the bodies of the parts to be engaged with one another do not interengage or interlock with one another, so that their portions do not extend into one another." However, isn't the claimed invention, "the disk is in non-positive engagement with the axle" itself *in fact* in engagement if the Applicant's invention of "non-positive" is true, since the disk and axle do interengage with one another (in that the axle extends within the disk) and are capable of interengaging. It also seems that the definitions of "non-positive" and "positive" as defined in the response of 17 August 2004 conflict with the definitions provided in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schill et al., USPN 5,884,357 in view of Zimmer, DE 44 28 371.

Schill et al. discloses a four joint wiper arm for a windshield wiper system that comprises a drive lever (Figure 2 (4)) connected to and fixed against relative rotation to a drive shaft (Figure 2 (7)), a steering lever (Figure 2 (5)) connected to an axle (Figure 2 (11)) which is pivotally connected to a wiper lever (Figure 2 (6)) that is braced in the mounting direction (see arrangement direction in Figure 4). Schill et al. does not

disclose specific pivotal connections such as one having levers braced in the mounting direction on a bearing shoulders.

Zimmer displays a connection between a shaft (or axle) (Figure 1 (10)) and a wiper "lever" (Figure 1 (14)) wherein the lever is braced in the mounting direction on a bearing shoulder (Figure 2 (26)) via a disk (Figure 2 (12)), and the disk is pressed by "non-positive engagement" onto the axle (in that the inner edges of the disk serve as "chamfers" or in that the axle is inserted into the disk), the disk in positive engagement with the steering lever (see Figure 2, it appears that the disk (12) is received in a specifically sized space (bottom portion of 32) within the steering lever), and the axle joined in the pivoting direction to the disk (see Figures). The axle is joined solidly to the disk in the pivoting direction (see screw thread (Figure 2 (24) direction) in a clearance fit (clearance gaps evident in Figure 3). The lever positively surrounds the disk and has circumferential "side walls" (Figure 2 (34) is a side wall and Figure 3 displays the lever surrounding the disk. It appears from Figure 2 that the "side walls" are merging in the mounting direction (upwards) from a smaller cross sectional region to a larger cross sectional region. The axle has a region (Figure 2 (22) wherein the cross section deviates from radial symmetry. Further, Zimmer displays an axle that has a cross sectional region deviating from radial symmetry (Figure 2 (22)) and a pressure piece (Figure 2 (28)) placed between the axle and lever (Figure 3) that has an opening (Figure 2 (30)) that suits the cross sectional region and positively surrounds the axle (Figure 3) and has an outer cone (Figure 2 (34) is cone shaped) pressed within in it an inner cone (Figure 2 (28) and is fixed axially on the bearing shoulder (Figure 3.) The axle and

pressure piece appear to be connected positively via from six load-bearing faces (Figure 2).

It would have been obvious for one of ordinary skill in the art to use the lever arrangement that Schill et al. teach and substituting the axles and securing connection structures for those that Zimmer teaches so that the positioning of levers to the axles is not affected by manufacturing tolerances and so that the connection is capable of transferring high torque independent of the tightness of the nut.

3. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schill et al., USPN 5,884,357 in view of Zimmer, DE 44 28 371.

Zimmer further discloses that the lever around the connection point to the axle has an indentation (Figure 2, dashed lines.) However, neither Zimmer nor Schill et al. disclose that the lever is a sheet metal part. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use sheet metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

Applicants Arguments

4. In the request for continued examination filed 17 August 2004, the Applicant contends that:

A. Schill nor Zimmer include a "non-positive engagement."

Response to Arguments

5. Applicant's arguments filed 17 August 2004 have been fully considered but they are not persuasive.

A. See above rejections. The disk and axle and the disk and steering lever of Zimmer are in an engagement with the axle as far as the term "non-positive engagement" and "positive engagement" are defined by the Applicant. It is further noted, that Figure 2 of Zimmer and Figure 3 of the Applicant's drawings, that the main structural difference occurs on the disk and that they have a reversal or an inverse of physical characteristics. If it is the "manner of relative rotation" between the axle/disk and disk/lever that is allowed or prevented by the physical structure, it may be clearer to include such language into the claim.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LCC

22 September 2004


Terrence R. Till
Primary Examiner